

# MISUSED SUBSTANCES

## Commonly Misused Substances

Substance use disorders include dependence on and abuse of alcohol and illicit drugs, including the nonmedical use of prescription-type drugs. Dependence and abuse are

defined using the American Psychiatric Association's criteria specified in the *Diagnostic and Statistical Manual of Mental Disorders*, 4<sup>th</sup> edition (DSM-IV).

Dependence reflects a more severe substance problem than abuse; individuals are classified with abuse of a particular substance only if they are not dependent on that substance.<sup>1</sup>

In 2003, current employment status was highly correlated with rates of illicit drug use. An estimated 18.2 percent of unemployed adults aged 18 or older were current illicit drug users, compared with 7.9 percent of those employed full time and 10.7 percent of those employed part time.<sup>2</sup> Fortunately, there are alcohol and drug treatment programs that can help participants transition to full employment and independent living.<sup>3</sup>

Each substance carries its own health risks; moreover, if left untreated, all have the potential to have a damaging effect on the lives of not only the people who experience these disorders, but also their families, co-workers, and communities.

Following are facts about the most commonly misused substances in the United States.



When I was a 14-year-old kid, I thought that because I got stoned every day, it meant that I was king of the world.

But by the time I finished school I was not only a pothead, I had also become a heroin addict and realized that the life of a drug addict wasn't so glamorous. My life became a 30-year cycle of incarcerations and alienation from my family. I was thoroughly engulfed in the subculture of addiction. Fortunately, after faltering many times, I found the treatment method that was right for me. Now I have a job and a family and hope for the future. I would never have had the joy of recovery were it not for substance abuse services provided in the state of MA. My heartfelt prayer is that those services will be there for others to have, so that they too may know the happiness of a new life with hope and a future that is bright with recovery.

### Dana Moulton

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# Alcohol

## Basic Facts:

- Consumption of alcohol can increase the risk of certain cancers, especially those of the liver, esophagus, throat, and larynx (voice box). Heavy drinking can cause liver cirrhosis (scarring), immune system problems, brain damage, and harm to the fetus during pregnancy.<sup>4</sup>
- The level of alcohol use was strongly associated with illicit drug use in 2003. Among the 16.1 million heavy drinkers aged 12 or older, 32.5 percent were current illicit drug users.<sup>5</sup>
- Even drinking at moderate levels can affect driving ability, interact with medications, and lead to alcohol-related birth defects.<sup>6</sup>

## Prevalence:

- As many as 22.6 percent of Americans aged 12 or older, or about 54 million people, reported binge drinking in the month prior to being surveyed in 2003 (as measured as having 5 or more drinks on the same occasion at least once in the past month). A “drink” is defined as a can or bottle of beer, a glass of wine or a wine cooler, a shot of liquor, or a mixed drink with liquor in it.<sup>7</sup>
- As many as 13.6 percent of Americans aged 12 or older (32.3 million people) drove motor vehicles under the influence of alcohol at least once in the 12 months prior to being interviewed in 2003 (a decrease from 14.2 percent, or 33.5 million people, in 2002).<sup>8</sup>
- The number of traffic fatalities in alcohol-related crashes rose slightly to 17,419 in 2002, accounting for 41 percent of the total traffic fatalities for the year.<sup>9</sup>

# Anabolic Steroids

## Basic Facts:

- Anabolic steroids are synthetic derivatives of the male hormone testosterone. They promote the growth of skeletal muscle and increase lean body mass.<sup>10</sup>
- Steroids can be taken orally or via injection with a needle. Some consequences of steroid use are increased risk of heart attacks and strokes, liver problems, stunted growth, infertility, and testicular shrinkage. Steroids also may increase irritability and aggression.<sup>11</sup>

## Prevalence:

- It is estimated that hundreds of thousands of people aged 18 and older misuse steroids at least once a year.<sup>12</sup>
- The percentage of high school seniors who had ever used steroids in their lifetimes increased from 2.5 percent in 2000 to 3.5 percent in 2003.<sup>13</sup>

## Cocaine and “Crack”

### Basic Facts:

- Cocaine is a powerfully addictive stimulant that directly affects the brain. One form of cocaine is hydrochloric salt, a white powder that dissolves in water and can be taken either intravenously or through the nose. The other form, freebase (crack), is cocaine that has been neutralized by an acid and can be smoked.<sup>14</sup>
- Research has revealed a potentially dangerous interaction between cocaine and alcohol. Mixing the two is the most common two-substance combination that results in drug-related death.<sup>15</sup>
- The medical complications associated with cocaine use include disturbances in heart rhythm and heart attacks, respiratory effects such as chest pain and respiratory failure, and neurological effects such as strokes.<sup>16</sup>

### Prevalence:

- In 2003, an estimated 2.3 million people (1 percent of Americans aged 12 or older) were current cocaine users, 604,000 of whom used crack.<sup>17</sup>
- Cocaine was mentioned in 30 percent of all emergency room visits that were induced by or related to drug use in 2002.<sup>18</sup>

# Ecstasy

## (also known as MDMA, or methylenedioxyamphetamine)

### Basic Facts:

- A synthetic illicit drug that causes both hallucinogenic and stimulant effects, Ecstasy (MDMA) most commonly is encountered at all-night dance parties (raves) and at techno parties and nightclubs. MDMA is generally sold as a tablet taken orally.<sup>19</sup>
- Using MDMA can cause confusion, depression, anxiety, sleeplessness, craving for the drug, and paranoia. People who take MDMA also risk dehydration, hyperthermia, and heart or kidney failure if using the drug during physical exertion or in hot environments, ultimately facing the possibility of death. Individuals with circulatory problems or heart disease face particular risks because MDMA can increase heart rate and blood pressure.<sup>20</sup>

### Prevalence:

- Most MDMA users are teenagers and young adults. More than 10 million people aged 12 or older have tried MDMA at least once, and more than 2 million have used the drug in the past year.<sup>21</sup>
- MDMA use decreased among 8<sup>th</sup>-, 10<sup>th</sup>-, and 12<sup>th</sup>-graders in 2003 compared with 2002.<sup>22</sup>



Today, I share my dual recovery in my writing, conference and workshop programs, and committee meetings. My dual recovery began in 1973, through an addiction program, halfway house, and the 12 Steps. Following addiction training, I worked in prevention and treatment programs. During the mid-1980s, I began experiencing multiple symptoms of major depression, attention deficit disorder, visual disturbance similar to an ongoing LSD flashback, and auditory hallucinations. Despite my efforts with professional help and medication options, the symptoms became more severe. Eventually, I was too impaired to continue working. Following a suicide crisis, I experienced renewed empowerment to pursue my recovery. In time, I found professional help and new medications to manage my symptoms. Also, I found support in a small group who wanted to form a dual recovery fellowship. Today, I have recovered myself, my ability to hope, cope, heal and improve my inner quality of life, as I manage two “no fault” illnesses together.

### Tim Hamilton

*Director of the Dual Recovery Empowerment Foundation and National Mental Health Association, Board Member and Chair of the Task Force on Substance Related and Co-Occurring Interactive Disorders*

# Hallucinogens

## Basic Facts:

- Hallucinogens, including LSD (lysergic acid diethylamide), mescaline, and psilocybin are drugs that disrupt a person's ability to think and communicate rationally and that distort one's perception of reality.<sup>23</sup>
- Drugs such as PCP (phencyclidine) and ketamine, initially developed as general anesthetics for surgery, distort perceptions of sight and sound and produce feelings of detachment—dissociation—from the environment and self.<sup>24</sup>
- In addition to short-term effects on perception and mood, hallucinogens are associated with psychotic-like episodes that can occur long after the person has taken the drug and can cause respiratory depression and heart rate abnormalities.<sup>25</sup>

## Prevalence:

- About 1 million people (0.4 percent) of people aged 12 or older were current users of hallucinogens in 2003.<sup>26</sup>

# Heroin

## Basic Facts:

- Heroin is processed from morphine. Recent studies suggest a shift from injecting heroin to snorting or smoking because of increased purity and the false belief that these forms are safer.<sup>27</sup>
- Heroin use is associated with serious health conditions, including fatal overdose, spontaneous abortion, collapsed veins, and infectious diseases including HIV/AIDS and hepatitis.<sup>28</sup>

## Prevalence:

- About 3.7 million Americans aged 12 or older have used heroin in their lifetimes.<sup>29</sup> About 281,000 heroin users were treated in the past year.<sup>30</sup>
- Heroin was mentioned in 14 percent of all emergency room visits that were induced by or related to drug use in 2002.<sup>31</sup>

## Inhalants

### Basic Facts:

- The term “inhalants” refers to more than 1,000 different household and commercial products that can be intentionally misused by inhaling them through the mouth or nose for an intoxicating effect. These products are composed of volatile solvents and substances commonly found in commercial adhesives, lighter fluids, cleaning solutions, and paint products.<sup>32</sup>
- A correlation has been found between the use of inhalants and problems in school, such as failing grades. Inhalant users can suffer physical consequences ranging from nausea and vomiting to damaged lungs, paralysis, and death.<sup>33</sup>

### Prevalence:

- In 2003, 14.9 percent of young adults (ages 18 to 25) and more than 10 percent of youths (ages 12 to 17) said they had used an inhalant at least once in their lifetimes.<sup>34</sup>
- The number of new inhalant users was about 1 million in 2002. As in prior years, these new users were predominately under age 18 (78 percent), and about half (53 percent) were male.<sup>35</sup>

## Marijuana

### Basic Facts:

- Long-term marijuana use can lead to addiction for some people.<sup>36</sup> Levels of the main active ingredient in marijuana, THC (delta-9-tetrahydrocannabinol), are five times greater than they were in the 1970s.<sup>37</sup>
- Depression, anxiety, and personality disturbances all are associated with marijuana use.<sup>38</sup> The use of marijuana also can produce adverse mental and behavioral changes, such as impaired short-term memory, verbal skills, judgment, coordination, and balance.<sup>39</sup>
- In a study published in the *British Medical Journal (BMJ)* in early 2005, researchers stated that exposure to cannabis (marijuana) during adolescence and young adulthood increases the risk of psychotic symptoms later in life. The researchers found that cannabis use moderately increases the risk of psychotic symptoms in young people but has a much stronger effect in those with evidence of predisposition for psychosis.<sup>40</sup>

## Prevalence:

- Marijuana is the most commonly used illicit drug in the United States (14.6 million past-month users). In 2003, it was used by 75.2 percent of current illicit drug users (those who had used an illicit drug during the month prior to the survey interview).<sup>41</sup>
- More than half of 18- to 25-year-olds have tried marijuana at least once.<sup>42</sup>
- Marijuana was mentioned in 18 percent of all emergency room visits that were induced by or related to drug use in 2002.<sup>43</sup>
- In 2003, 12.2 percent of people who had used marijuana in the past year (3.1 million people) used it on a daily or almost-daily basis during the year.<sup>44</sup>

## Methamphetamine/ Amphetamines

### Basic Facts:

- Methamphetamine and stimulants with similar chemical properties, such as amphetamines, are powerfully addictive stimulants that affect the central nervous system. They can be taken orally, by intravenous injection, by smoking, or by snorting.<sup>45, 46</sup>
- Although methamphetamine was used first in selected urban areas, high levels of methamphetamine use are now seen in both urban and rural settings and by very diverse segments of the population.<sup>47</sup>
- Methamphetamine use can cause strokes, convulsions, anxiety, and irregular heartbeat. Its use can result in cardiovascular collapse or death.<sup>48</sup>

### Prevalence:

- In 2003, 607,000 Americans aged 12 or older said they had used methamphetamine nonmedically in the past month. That same year, more than 5 percent of Americans age 12 or older said they had used methamphetamine nonmedically during their lifetimes.<sup>49</sup>
- Methamphetamine and amphetamines were each mentioned in about 3 percent of all emergency room visits that were induced by or related to drug use in 2002.<sup>50</sup>

# Prescription Drugs

## Basic Facts:

- Prescription drugs are safe and effective when used correctly and under a doctor's supervision. However, certain prescription drugs, when misused, can alter the brain's activity and lead to dependence and, possibly, addiction.<sup>51</sup>
  
- Three types of prescription drugs often are misused:
  - **Opioids:** These are narcotics such as morphine, oxycodone, and codeine. They are prescribed by physicians to treat pain from cancer, terminal illness, severe injury, or surgery. Misuse and abuse of opioids may lead to dependence and uncomfortable withdrawal symptoms when use is reduced or stopped. Withdrawal symptoms can include muscle and bone pain, diarrhea, vomiting, cold flashes, and involuntary leg movements.<sup>52</sup>
  
  - **Central nervous system (CNS) depressants:** These drugs may be prescribed by doctors to treat anxiety and sleep disorders. Among the medications that are commonly prescribed for these purposes are barbiturates, such as mephobarbital (Mebaral®) and pentobarbital sodium (Nembutal®), and benzodiazepines, such as diazepam (Valium®), chlordiazepoxide HCl (Librium®), and alprazolam (Xanax®). Withdrawal from CNS depressants can be difficult, even dangerous. Because all CNS depressants work by slowing the brain's activity, when an individual stops taking them, the brain's activity may rebound and race out of control, possibly leading to seizures and other harmful consequences. For this reason, someone who is thinking about discontinuing CNS depressant therapy or who is suffering withdrawal from a CNS depressant should visit a physician.<sup>53</sup>
  
  - **Stimulants:** Used to increase alertness and physical activity, they often are prescribed to treat narcolepsy, attention deficit hyperactivity disorder, and obesity. Some common medications include Dexedrine® to treat narcolepsy and Ritalin® to treat attention deficit hyperactivity disorder. Taking inappropriately high doses of a stimulant may result in an irregular heartbeat, dangerously high body temperature, cardiovascular failure, or lethal seizures.<sup>54</sup>

## Prevalence:

- As many as 1.9 percent of adults aged 26 or older reported current misuse of prescription drugs in 2003. Among people ages 18 to 25, prescription drug misuse was higher than 6 percent.<sup>55</sup>
- Collectively, the benzodiazepines, antidepressants, and analgesics (prescription pain medicine) constituted 359,266 emergency department mentions in 2002, or nearly 30 percent of total emergency department drug mentions.<sup>56</sup>

## Tobacco

### Basic Facts:

- Cigarettes and other forms of tobacco, such as cigars, pipe tobacco, and chewing tobacco, are addictive, and nicotine is the drug in tobacco that causes addiction. Nicotine is both a stimulant and sedative to the central nervous system. It is readily absorbed into the body when tobacco is smoked or chewed.<sup>57</sup>
- Tobacco use, particularly cigarette smoking, is the leading cause of preventable illness in the United States.<sup>58</sup> Smoking accounts for at least 30 percent of all cancer deaths and 87 percent of lung cancer deaths.<sup>59</sup> Smoking is also a major cause of stroke, and smoking-related illnesses are the third-leading cause of death in the United States.<sup>60</sup>

### Prevalence:

- In 2003, an estimated 70.8 million (29.8 percent) of Americans aged 12 or older reported using a tobacco product in the month before they were surveyed. This includes an estimated 3.6 million youths aged 12 to 17 (14.4 percent) who reported using tobacco in the past month.<sup>61</sup>
- Young adults aged 18 to 25 reported the highest rate of past-month cigarette use at 40.2 percent.<sup>62</sup>

To learn more about substance use disorders, treatment, and usage rates, you can access many of the materials cited in this fact sheet by visiting the Substance Abuse and Mental Health Services Administration's (SAMHSA's) Web site at [www.samhsa.gov](http://www.samhsa.gov) or by contacting an information specialist at SAMHSA's National Clearinghouse for Alcohol and Drug Information (NCADI) toll-free at 1-800-729-6686 or 301-468-2600. You also can access the Clearinghouse at [www.ncadi.gov](http://www.ncadi.gov).

**For additional *National Alcohol and Drug Addiction Recovery Month (Recovery Month)* materials, visit our Web site at [www.recoverymonth.gov](http://www.recoverymonth.gov) or call 1-800-662-HELP.**

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